



Fort Campbell Water Quality Report - 2003

Tennessee PWSID # 0000820 Kentucky PWSID # 0241001

Is my drinking water safe?

Yes, your water meets all of EPA's health standards. We have conducted numerous tests for over 80 contaminants that may be in drinking water. As you'll see in the chart on the back, we only detected 14 of these contaminants. We found all of these contaminants at safe levels.

What is the source of my water?

Your water, which is ground water, comes from an aquifer located on post. Our goal is to protect our water from contaminants and we are working with the State to determine the vulnerability of our water source to **potential** contamination. The Tennessee Department of Environment and Conservation (TDEC) has prepared a Source Water Assessment Program (SWAP) Report for the untreated water source serving this water system. The SWAP Report assesses the susceptibility of untreated water sources to **potential** contamination. To ensure safe drinking water, all public water systems treat and routinely test their water. Water sources have been rated as reasonably susceptible (high), moderately susceptible (moderate) or slightly susceptible (low) based on geologic factors and human activities in the vicinity of the water source. The Fort Campbell source rated as reasonably susceptible to potential contamination.

An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings and the overall TDEC report to EPA can be viewed online at www.state.tn.us/environment/dws/dwassess.php or you may contact the Water System to obtain copies of specific assessments.

Why are there contaminants in my water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Community water systems are required to disclose the detection of contaminants; however, bottled water companies are not required to comply with this regulation. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

**Este informe contiene información muy importante.
Tradúscalo o hable con alguien que lo entienda bien.**

For more information about your drinking water, please call James Evans at 931-431-5677.

How can I get involved?

Contact the Water Treatment Plant (James Evans) at 931-431-5677.

Is our water system meeting other rules that govern our operations?

The State and EPA require us to test and report on our water on a regular basis to ensure its safety. We have met all of these requirements except for five days in September when samples for chlorine residuals were not collected on dead end and low usage lines. Results of unregulated contaminant analysis are available upon request.

Other Information

We at Fort Campbell work around the clock to provide top quality water at every tap. We ask that all our customers help us protect our water source, which is the heart of our community, our way of life and our children's future. The changing mission of the 101st and an increase in tenant units has resulted in growth in both the number of personnel served as well as geographic spread from the original 1940's construction. Both the plant and distribution system have grown and have been managed to meet these challenges. The Fort Campbell water system is proud of the professionalism of its staff. Four operators are Grade IV (the highest grade) Water Treatment Plant Certified Operators in the State of Tennessee. The staff is also active with AWWA (American Water Works Association) and TAUD (Tennessee Association of Utility Districts) to maintain its knowledge of water issues and regulatory changes.

The Fort Campbell Water Plant has been rehabilitated over the last several years to update the treatment processes. Efforts are constantly on going to improve the water distribution system and water storage facilities across post.

In September 2003 the water system was privatized with ownership transferring from the U.S. Army to CH2M HILL Constructors Inc.

Do I Need To Take Special Precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who

have under-gone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about not only their drinking water, but food preparation, personal hygiene, and precautions in handling infants and pets from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Water System Security

Following the events of September 2001, we realize that our customers are concerned about the security of their drinking water. Unlike many municipal utilities, our water source is on post and protected by Post Security. We urge all residents of Fort Campbell to report any suspicious activities at any utility facilities, including the Water Treatment Plant, pumping stations, storage tanks, fire hydrants, etc. to 798-7111, 7112, 7113 or 431-5677.

Water Quality Data

What does this chart mean?

- **MCLG** - Maximum Contaminant Level Goal, or the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- **MCL** - Maximum Contaminant Level, or the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.
- **MRDL**: Maximum Residual Disinfectant Level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the control of microbial contaminants.
- **MRDLG**: Maximum residual disinfectant level goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **AL** - Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow. Non-Detects (ND) - laboratory analysis indicates that the contaminant is not present.
- Parts per million (ppm) or Milligrams per liter (mg/l) – explained as a relation to time and money as one part per million corresponds to one minute in two years or a single penny in \$10,000.
- Parts per billion (ppb) or Micrograms per liter – explained as a relation to time and money as one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - explained as a relation to time and money as one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - explained as a relation to time and money as one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
- Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.
- Millirems per year (mrem/yr) - measure of radiation absorbed by the body.
- Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
- Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **TT** - Treatment Technique or a required process intended to reduce the level of a contaminant in drinking water.

Contaminant	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	N	0				0	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Turbidity	N	0.48	0.02-0.48		NTU	n/a	TT	Soil runoff
Gross Alpha	N	1.3		10/03	PCi/l	0	15	Erosion of natural deposits
Combined radium	N	0.3		10/03	PCi/l	0	5	Erosion of natural deposits

Asbestos ¹	N	<0.193		2001	MFL	7	7	Decay of asbestos cement water mains; erosion of natural deposits
Copper	N	0.84	<0.005-0.8367	7/03	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	N	1.08	0.67-1.08		ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead ²	N	0.0049	<0.001-0.0049		ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nirate (as Nitrogen) ³	N	0.877		8/03	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	N	3.39	3.31-3.39		ppm	N/A	N/A	Erosion of natural deposits; used in water treatment
Dichloromethane	N	1.06		6/03	ppb	0	5	Discharge from pharmaceutical and chemical factories
Tetrachloroethylene	N	0.41		7/03	ppb	0	5	Discharge from factories and dry cleaners
TTHM ⁴ [Total trihalomethanes]	N	9.99	1.21 – 16.10		ppb	n/a	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	N	3.35	1.54 - 6.05		ppb	N/A	60	By-product of drinking water disinfection.
Total Organic Carbon	N	<1.0	0.42- <1.0		ppm	TT	TT	Naturally present in the environment.

Contaminant	Violation Yes/No	Level Found	Range of Detections	Date of Sample	Unit Measurement	MRDLG	MRDL	Likely Source of Contamination
Chlorine Plant	N	2.59	1.20-2.59		ppm	4	4	Water additive used to control microbes.
Chlorine Distribution System	N	2.20	0.00-2.20		ppm	4	4	Water additive used to control microbes.

During the most recent round of Lead and Copper testing, 0 out of 30 households sampled contained concentrations exceeding the action level.

¹The laboratory did not meet the required detection limit therefore the data does not necessarily reflect that the water is contaminated to a level approaching the MCL.

²Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

³Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

⁴ While your drinking water meets EPA's standard for trihalomethanes, it does contain low levels. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Health Effects

Microbiological Contaminants:

Total Coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present.

Turbidity. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Radioactive Contaminants:

Alpha emitters. Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Combined Radium 226/228. Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Inorganic Contaminants:

Asbestos. Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.

Copper. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Fluoride. Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

Lead. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Nitrate. Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Volatile Organic Contaminants:

Dichloromethane. Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.

Tetrachloroethylene. Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.

TTHMs [Total Trihalomethanes]. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

HAA [Haloacetic Acids]. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.